Academic Program Assessment
AY 2024-2025

Program Name	Date Completed
Wildlife and Natural Resources	**6-4-2025**
Report Completed By	Report Contributors
Daryl Trumbo	**Claire Ramos, Fran Sandmeier**

Brief Statement of Program Mission and Goals

The major of Wildlife and Natural Resources (WANR) leads to a Bachelor of Science (BS) Degree. In addition, supporting courses and general education courses in biology are available to meet a wide range of interests, backgrounds and needs. The WANR Program emphasizes an understanding of fish and wildlife ecology and management with practical skills obtained during laboratory and field exercises. Graduates are prepared for positions with state and federal agencies, tribal departments, and conservation organizations or higher academic degrees. Carefully supervised career planning is provided to all students.

Program Goals
• To provide students with the necessary background to successfully pursue graduate study towards a professional career in wildlife and natural resources;
• To prepare students upon graduation to enter field positions in government or private industry; and,
• To supply students with the necessary coursework to obtain professional certification as associate fishery or wildlife biologists.

Table I Closing the Loop

Report on at least one data-informed change to your curriculum during AY 2024-2025 that was implemented to improve student learning, in response to prior assessments or other data.

A. Describe issues or SLOs addressed in the AY 2024-2025 cycle. Paste SLOs verbatim below.

SLO 1: To assess knowledge of organismal and ecological biology we will administer the GRE to each class of First Year Seminar (BIOL 171) for baseline assessment and administer the GRE and MFAT exam to each class of Senior Seminar (BIOL 493). For each of these exams, only the organismal and ecological portions will be considered. The MFAT in particular is divided into Cell Biology, Molecular Biology and Genetics, Organismal Biology, and Population Biology, Evolution and Ecology. The first two will not be considered as they are not extensively covered in the WANR curriculum. Our goal is to have 75% of our senior students score at or above 50% of National percentile on the on both the Organismal Biology portion and Population Biology, Evolution and Ecology portion of the MFAT exam.

B. In which academic year and semester was this SLO last assessed to generate data that informed the change(s)?

2023-2024

C. What were the recommendations for change in the previous cycle? (See Column H in the previous cycle's report.)

We recommended removing the Cellular and Molecular Biology portions of the GRE and MFAT from the WANR student tests, since WANR students do not cover these topics extensively in their curricula.

D. How were the recommendations for change acted upon?

The senior WANR students still took all sections of the MFAT (including Cellular & Molecular), but we did not assess them on their scores for those sections. We instead focused on the Ecology & Evolution sections.

E. How did the change(s) impact student learning? If the change was not effective, what are the next steps or new recommendations?

19 senior WANR students took the MFAT in 2024-2025 in Senior Seminar (BIOL 493). On the 'Ecology' and 'Diversity of Organisms' sections, our WANR students scored above the National average (i.e., scored an avg. of 47% correct compared Nat. avg. of 45.2% correct on the 'Ecology' section; and scored an avg. of 56% correct compared to Nat. avg. of 52.1% in 'Diversity of Organisms' section). On the other sections of the MFAT, our WANR students were below the Nat. avg. (Biochemistry, Cellular, Molecular, Organismal, Pop. Gen. & Evolution). Their worst scores were in Molecular Biol. & Genetics (28%, compared to Nat. avg. of 40.7%). This is not a surprising finding, as most WANR students do not take many Cellular, Molecular, or Genetics courses; while they do instead focus heavily on natural resource policy & law classes, to prepare them for future potential government and non-profit careers. It is surprising, on the other hand, that they scored poorly on the Organismal & Evolution sections of the test, since those concepts are emphasized in many of our WANR courses. These topics will be emphasized in the future to attempt to improve these scores.

Enter Table I Closing the Loop Comments Below

Academic Program Assessment
AY 2024-2025

Program Name	Date Completed
Wildlife and Natural Resources	**6-4-2025**
Report Completed By	Report Contributors
Daryl Trumbo	**Claire Ramos, Fran Sandmeier**

Table II Annual assessment of Student Learning Outcomes (SLOs) in AY 2024-25

1. Include information to share assessment processes, results, and recommendations for improved student learning. Copy this table for each assessed outcome.

A. Program SLO assessed in this cycle. Copy the SLOs verbatim from the assessment plan.
SLO 1: To assess knowledge of organismal and ecological biology we will administer the GRE to each class of First Year Seminar (BIOL 171) for baseline assessment and administer the GRE and MFAT exam to each class of Senior Seminar (BIOL 493). For each of these exams, only the organismal and ecological portions will be considered. The MFAT in particular is divided into Cell Biology, Molecular Biology and Genetics, Organismal Biology, and Population Biology, Evolution and Ecology. The first two will not be considered as they are not extensively covered in the WANR curriculum. Our goal is to have 75% of our senior students score at or above 50% of National percentile on the on both the Organismal Biology portion and Population Biology, Evolution and Ecology portion of the MFAT exam.
B. Semester and year this SLO was reported on prior to this cycle.
2023-2024
C. Describe the assessment method for this SLO.
WANR students were assessed by the MFAT Exam during their Senior Seminar course (BIOL 493) in 2024-2025.
D. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.
19 WANR senior students were assessed.
E. Expected proficiency level and proportion of students who should reach this level.
Our Goal was for 75% of our senior WANR students to score at or above the 50% National percentile on the 'Organismal' & 'Population Biology, Ecology, and Evolution' sections of the MFAT Exam.
F. Assessment results and number of students who met proficiency level.
14/19 WANR students (73.6%) scored above the 'Organismal' section's Nat. Avg. of 40%. 15/19 WANR students (78.9%) scored above the 'Population Biology, Ecology, and Evolution' section's Nat. avg. of 40%.

G. Describe what results indicate about student performance.
Our senior WANR students scored very well on the Ecology & Diversity of Organisms sections of the Exam compared to the National average. They scored less well on the Organismal and Evolution sections of the Exam.
H. Describe program level changes/improvements planned for AY 2025-2026 informed by this assessment.
We plan to focus on improving the Organismal and Evolution performance of our WANR students, and maintain their high performance in Ecology and Diversity of Organisms.

Enter Table II AY 2025 Assessment Comments Below

Program Name	Date Completed
Wildlife and Natural Resources	**6-4-2025**
Report Completed By	Report Contributors
Daryl Trumbo	**Claire Ramos, Fran Sandmeier**

Table II Annual assessment of Student Learning Outcomes (SLOs) in AY 2024-25

2. Include information to share assessment processes, results, and recommendations for improved student learning. Copy this table for each assessed outcome.

I. Program SLO assessed in this cycle. Copy the SLOs verbatim from the assessment plan.
SLO 2: Knowledge of local flora and fauna will be measured in taxonomy classes (BIOL 479 Ichthyology, BIOL 481 Entomology, BIOL 482 Herpetology, BIOL 483 Mammalogy, BIOL 484 Ornithology, BIOL 485 Plant Taxonomy). All of these courses include taxonomy exams that focus on identification of local species. The raw score on these exams will be used to assess student knowledge of local species. Our goal for 75% of students to score 70% or better on these exams. Exams will be graded and copied by faculty teaching the courses and supplied to the program director.
J. Semester and year this SLO was reported on prior to this cycle.
2023-2024
K. Describe the assessment method for this SLO.
21 WANR students were assessed on their taxonomy knowledge in a practical exam for BIOL 484 (Ornithology) in 2024-2025.

L. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.
21 WANR students were assessed.
M. Expected proficiency level and proportion of students who should reach this level.
Our goal for 75% of students to score 70% or better on these exams.
N. Assessment results and number of students who met proficiency level.
19 of 21 students (79.2%) scored 70% or higher on the practical exam for BIOL 484 (Ornithology) in 2024-2025.
O. Describe what results indicate about student performance.
Students met or exceeded the SLO for the taxonomy practical exam in 2024-2025.
P. Describe program level changes/improvements planned for AY 2025-2026 informed by this assessment.
No changes planned at this time.

Enter Table II AY 2025 Assessment Comments Below

Program Name	Date Completed
Wildlife and Natural Resources	**6-4-2025**
Report Completed By	Report Contributors
Daryl Trumbo	**Claire Ramos, Fran Sandmeier**

Table II Annual assessment of Student Learning Outcomes (SLOs) in AY 2024-25

3. Include information to share assessment processes, results, and recommendations for improved student learning. Copy this table for each assessed outcome.

Q. Program SLO assessed in this cycle. Copy the SLOs verbatim from the assessment plan.
SLO 3: Assessment of fisheries and wildlife management will occur in the 400 level wildlife courses, WANR 401 (Fisheries Science) and WANR 402 (Management of Endangered Species). Each of these classes culminate in a final project involving management science. These projects will be assessed by faculty using a rubric. Our goal is to have 75% of students achieve an average score of proficient on these rubrics.

R. Semester and year this SLO was reported on prior to this cycle.
2022-2023
S. Describe the assessment method for this SLO.
15 WANR students were assessed on their Management Policy science in WANR 402 (Management of Endangered Species) by a Final Presentation on a threatened or endangered species in 2024-2025. 10 WANR students were assessed on their Management Policy science by turning in a comprehensive Lab Notebook in WANR 401 (Fisheries Science) in 2024-2025.
T. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.
15 WANR students in WANR 402 were assessed. 10 WANR students in WANR 401 were assessed.
U. Expected proficiency level and proportion of students who should reach this level.
Our goal for 75% of students to score 70% (proficient or better) on these Management Policy projects.
V. Assessment results and number of students who met proficiency level.
All 15 WANR students scored above 70% (avg. score was 90%) on their final endangered species management projects in WANR 402. 9 of 10 WANR students scored above 70% (avg. score was 83.5%) on their final lab notebook projects in WANR 401.
W. Describe what results indicate about student performance.
All students scored above the threshold for WANR 402, and 90% scored above the threshold for WANR 401.
X. Describe program level changes/improvements planned for AY 2025-2026 informed by this assessment.
No changes planned at this time.

Enter Table II AY 2025 Assessment Comments Below

Program Name	Date Completed
Wildlife and Natural Resources	**6-4-2025**

Report Completed By	Report Contributors
Daryl Trumbo	**Claire Ramos, Fran Sandmeier**

Table II Annual assessment of Student Learning Outcomes (SLOs) in AY 2024-25

4. Include information to share assessment processes, results, and recommendations for improved student learning. Copy this table for each assessed outcome.

Y. Program SLO assessed in this cycle. Copy the SLOs verbatim from the assessment plan.
SLO 4. Interpretation of scientific literature will be assessed twice, once during the second year in Botany (BIOL 201) or Zoology (BIOL 202) and again in Senior Seminar (BIOL 493). A rubric will be developed to assess proficiency at reading, interpreting, and presenting scientific literature. Our goal is to have at 75% of our senior students be at Proficient level.
Z. Semester and year this SLO was reported on prior to this cycle.
2022-2023
AA. Describe the assessment method for this SLO.
19 senior WANR students were assessed on their on their interpretation of scientific literature in Senior Seminar (BIOL 493) in 2024-2025 by presenting a research proposal to classmates and faculty.
BB. Described student group(s) assessed. Provide the number of students or number of artifacts assessed.
19 senior WANR students in BIOL 493 were assessed.
CC. Expected proficiency level and proportion of students who should reach this level.
Our goal was to have at 75% of our senior students be at Proficient level.
DD. Assessment results and number of students who met proficiency level.
All 19 WANR students scored Proficient or better in BIOL 493 (Senior Seminar) in 2024-2025.
EE. Describe what results indicate about student performance.
Students are performing at a Proficient level for this SLO.
FF. Describe program level changes/improvements planned for AY 2025-2026 informed by this assessment.
No changes planned at this time.

Enter Table II AY 2025 Assessment Comments Below